An Evaluation of the 5 A's Model Used in Behavioral Counseling of Obese Patients in a Primary Care Setting.

Abstract

Title: An evaluation of the 5 A's Model used in behavioral counseling of obese patients in a primary care setting.

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Purpose: To implement an intensive counseling method using the 5 A's model for obese adults to aid in weight loss.

Design: A quality improvement project was implemented within an inner-city primary care clinic in Memphis, TN. Using the 5 A's model health-care providers implemented counseling to their obese patients and set patient centered goals with a follow-up appointment of 1 month.

Methods: Chart reviews, descriptive statistics, and sample paired t-tests were used for data analysis.

Results: This project resulted in 94.11% of patients losing a mean weight of 3.7 pounds over the course of one month.

Conclusion: There is a positive correlation between the use of the 5 A's model and weight loss in primary care clinics.

Implications in Practice: This project increases the awareness of how a systematic behavioral counseling tool can aid weight loss in patients within primary care.

Keywords: Obesity, Counseling, Adults, Weight

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Introduction

Currently, over two thirds of Americans are overweight or obese (Stewart et al., 2011). Obesity is a state of being grossly overweight, which is defined by a body mass index (BMI) above 30. Obesity is associated with an increased risk of type 2 diabetes, hypertension, and high lipid levels (Ali & Nasir, 2016). In spite of several clinical practice guidelines, there is still a substantial gap in prevention and management of obesity in primary care (Osunlana et al., 2015). Counseling by providers could help patients with weight loss, but providers find these talks pointless and arduous (Stewart et al., 2011). With providers in primary care being at the forefront of addressing this epidemic, appropriate tools are required to work effectively with patients to address weight loss.

Buppert (2015), states that the Family Nurse Practitioner (FNP) is qualified in advanced practice to meet the increased demand for primary care services. Primary care involves health promotion and prevention of disease, along with management of health problems. Obesity can be identified and managed, therefore it fits under a broad scope, where the FNP is responsible for and held accountable to treat (Buppert, 2015).

The 5 A’s behavior change model can be used to promote patient behavior change and support weight management (Sherson, Jimenez, & Katalanos, 2014). The 5 A’s framework guides the physician to assess risk, present habits, and willingness to alter lifestyle, advise change of certain behaviors, agree to establish goals collaboratively, assist in tackling barriers and acquiring support, and arrange for follow-up. Using this patient-centered approach leads to

increased patient satisfaction and better health outcomes (Jay, Gillespie, Schlair, Sherman, & Kalet, 2010).

Needs Assessment

At an urban, primary care office in Memphis, TN a random review of 30 charts was completed. Of the 30 charts reviewed, 76.7% of the patients seen were obese with a BMI > 30. From that population, 60% of patient's did not leave the clinic with a diagnosis of obesity nor a documented weight management plan. Out of the patients with no plan and no diagnosis, 26.1% had a BMI > 40, with 1 patient having a BMI > 60.

Methods

Theory

Pender's Health Promotion Model was used for this project to aid in understanding patients' health behavior and to use it as a basis for behavioral counseling to endorse healthy lifestyles. The center for this model is based around 8 beliefs, which serve as critical points for intervention, designed to alter how people behave and think (Pender, 2011). National guidelines recommend that for adults who are obese, practitioners should offer or refer to structured behavioral interventions aimed at weight loss (Brauer et al., 2015). The steps of Pender's theory start by assessing the client's characteristics, experiences, prior behavior, and influences. Next, the theory aims to set realistic goals by creating a plan of action, while avoiding competing demands and preferences. Finally, ongoing evaluation and follow up is permitted, with an ability to readjust the plan as needed (Pender, 2011).

Evidence-based Practice

An evidence-based practice model helps the practitioner integrate individual clinical proficiency with the best clinical evidence available. For purposes of this project, the ACE Star

Model of Knowledge Transformation is appropriate as it incorporates newly discovered knowledge into practice throughout various stages. The model exemplifies five major stages including knowledge discovery, evidence summary, translation into practice recommendations, integration into practice, and evaluation (Clanton, 2014).

Subjects

A total of 20 participants were included in this quality improvement project. Participants were chosen randomly based on their BMI, and if their BMI was ≥ 30 they were given the opportunity to be counseled on weight loss. Participants were both male and female, over the age of 18, and with a BMI ≥ 30. Exclusion criteria for this project included those < 18 years old or having had bariatric surgery in the past 2 years, due to being followed closely by their surgeon for weight loss.

Setting

The setting for this project was an urban primary care clinic in Memphis, TN. The clinic also specializes in urgent care, pediatrics, and obstetrics. A mixed variety of cultures and ethnicities are served by the clinic. All of the patients had varying insurance coverage ranging from private insurance to government-assisted insurance.

Tools

During patient care visits, the medical assistant obtained the patient's height, weight, and blood pressure, then calculated a BMI for the patient. At this point the staff identified the patient as a candidate for the project or not. This information was documented in the patient's chart and was visible to the provider pre-visit. The tool that was used for this project is the 5A's tool, and included 5 steps (Assess, Advise, Agree, Assist, and Arrange) of counseling. This is not a data

collection tool but rather a behavioral therapy intervention and therefore no validity and reliability of tool was available.

Intervention and Data Collection

Four practitioners were involved on a provider basis and preformed the counseling. These providers were educated about the 5 A's model on a weekly basis during the course of implementation. Education materials about the 5 A's Behavior Change Model was provided to each provider involved. Assistance was available to the medical assistants on a weekly basis and as needed to obtain heights, weights, blood pressures, and calculate BMIs on all patients. During the implementation, all patients greater than 18 years of age and with a BMI greater than or equal to 30 who were being seen by the provider were questioned about their motivation to lose weight. For patients who agreed to participate in the project, information sheets were given to them providing specific information related to the project and contact information for follow up. The patient received a counseling session on weight loss using the 5 A's model. Every counseling session was patient-centered based on their needs and feedback, but all 5 A's were be addressed.

Some patients needed prescriptions and referrals while others only needed a follow up appointment to monitor weight and reassess needs. Generalized education material on weight loss was provided to all patients during counseling session based on the patient's interest. For example, if the patient was interested in a low calorie, low fat diet, education material was given on that specific type of diet. All patients were schedule for a 1 month follow-up date set for weigh-in and additional counseling as needed.

Results

This project found that consistent with the literature patients who were counseled using the 5 A's model were more adept to losing weight. Out of the 20 patients initially included in the study, there were 3 no shows for the 1 month follow up appointment, therefore the total inclusion number is 17 ($n = 17$). Descriptive statistics and samples paired t-tests were used for the data analysis of the results in this study. Within 1 month, 94.11% of the patients showed a decrease in their baseline weight and BMI. Only 5.9% showed no difference in their weight or BMI. The mean difference in BMI reduction is .65765 with a significance of $p=.001$. The mean weight loss within 1 month was 3.70588 with a significance of $p=.000$. Other than weight and BMI reduction, changes in exercise habits and blood pressure were measured. Patients were given an exercise goal of greater than 150 minutes of aerobic exercise each week, which follows the guideline set by the Office of Disease Preventions and Health Promotion. Only 47.1% patients stated that they met their exercise guidelines, while 52.9% admitted being noncompliant with this goal. Changes in systolic blood pressure were significant ($p = 0.045$) with a mean difference of 5.059 mmHg. Changes in diastolic blood pressure were less significant ($p = .809$) with only a mean difference of .471.

Discussion

It's clear that there is a positive correlation between the discussion and planning of weight loss, initiated by the health care provider and patient's actual weight loss. Significant changes in weight, BMI and systolic blood pressure were seen. One possible improvement to be made to this study is ensuring there is multilingual educational materials for patients regarding diet and exercise as some of the patients in the study spoke more than one language. Lastly

another option is a literacy test for patients, due to the low literacy levels in inner city Memphis, TN, to determine if education materials are useful.

Implications for Practice

Although U.S. Preventive Services Task Force guidelines are suggesting appropriate weight loss counseling be initiated and that it be patient-centered, there is still a substantial gap in the prevention and management of obesity in the United States. Primary care clinics will positively benefit from having a standardized model for weight-loss counseling. The 5 A's model is a successful tool and if used in a clinic would help to improve patient's weight as well as their associated comorbidities. Health care costs will eventually decrease and an overall risk of death from obesity will be diminished. Despite the small sample size for this project, results show that the 5 A's model is successful at focusing on each patient's individual needs and helping them reach their weight loss goals. Providers may still argue that they do not have enough time throughout the day to implement this with each patient, along with proper documentation. More research should be done to determine how this model can be implemented in to the electronic medical records, making it more available to health care providers and easier to document.

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